

Product Datasheet

FOX2 Antibody - BSA Free NB110-40588

Unit Size: 100 ul

Store at 4C. Do not freeze.

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NB110-40588

FOX2 Antibody - BSA Free

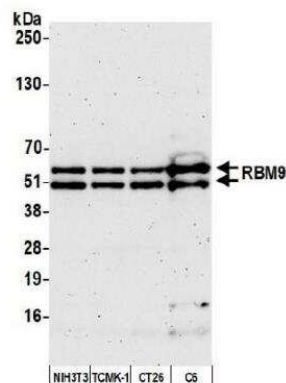
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

Product Description	
Description	Novus Biologicals Rabbit FOX2 Antibody - BSA Free (NB110-40588) is a polyclonal antibody validated for use in IHC, WB, Flow and IP. Anti-FOX2 Antibody: Cited in 9 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	23543
Gene Symbol	RBFOX2
Species	Human, Mouse, Rat
Immunogen	The immunogen recognized by this antibody maps to a region between residue 1 and 50 of human RNA Binding Motif Protein 9 using the numbering given in entry NP_055124.1 (GeneID 23543).

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Flow Cytometry, Immunohistochemistry 1:2000 - 1:10000, Immunoprecipitation 2-10 ug/mg lysate, Immunohistochemistry-Paraffin 1:2000 - 1:10000
Application Notes	Epitope retrieval with citrate buffer pH6.0 is recommended for FFPE tissue sections.

Images

Western Blot: FOX2 Antibody [NB110-40588] - Whole cell lysate (10 ug) from NIH 3T3, TCMK-1, CT26, and C6 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-RBM9 antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.



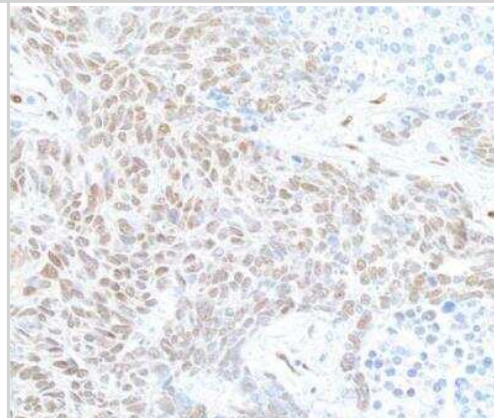
Immunohistochemistry-Paraffin: FOX2 Antibody [NB110-40588] - FFPE section of mouse renal cell carcinoma. Antibody: Affinity purified rabbit anti-RBM9 used at a dilution of 1:5,000 (0.2ug/ml). Detection: DAB



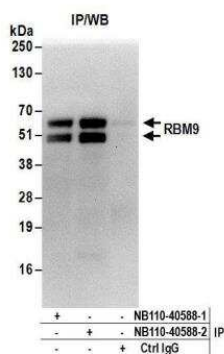
Western Blot: FOX2 Antibody [NB110-40588] - Whole cell lysate (10 ug) from HEK293T, HeLa, RKO, and U2OS cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-RBM9 antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.



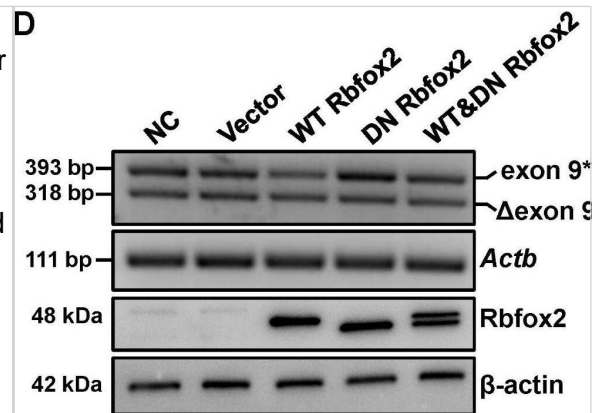
Immunohistochemistry-Paraffin: FOX2 Antibody [NB110-40588] - FFPE section of human lung carcinoma. Antibody: Affinity purified rabbit anti- used at a dilution of 1:5,000 (0.2ug/ml). Detection: DAB



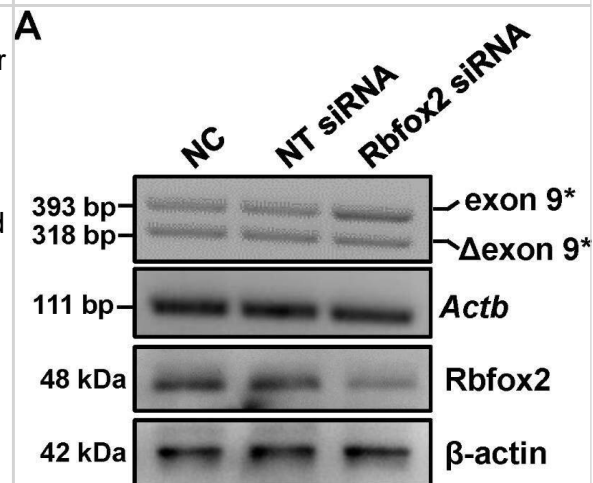
Immunoprecipitation: FOX2 Antibody [NB110-40588] - Detection of human RBM9 by western blot of immunoprecipitates. Samples: Whole cell lysate (1 mg for IP; 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-RBM9 antibody NB110-40588 (lot NB110-40588-2) used for IP at 6 ug/mg lysate. RBM9 was also immunoprecipitated by a previous lot (lot NB110-40588-1) of this antibody. For blotting immunoprecipitated RBM9, NB110-40588 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



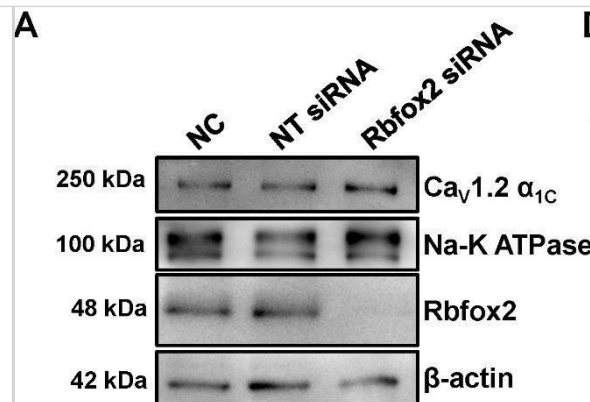
Rbfox2 specifically modulates CaV1.2 alternative exon 9* splicing in cardiomyocyte. (A) H9c2 cells were transfected with nontargeting (NT) or Rbfox2 siRNA for 48 h. The endogenous expression of Rbfox2 protein was detected by Western blotting, the β -actin was detected as internal control. PCR product of CaV1.2E9* channel was amplified from cDNA libraries and separated on 2.5% agarose gel. Actb mRNA was detected as internal control. (B) The relative expression of Rbfox2 was normalized to β -actin. (C) The value for percent CaV1.2E9* inclusion was the upper band intensity divided by the summed intensities of upper and lower bands, and presented as a bar chart. (D) H9c2 cells were transfected with an empty vector, WT Rbfox2, DN Rbfox2 or WT plus DN Rbfox2 expression plasmids, nontreated cells were set as negative control (NC). After 48 h incubation, the expression of Rbfox2 protein was detected by Western blotting, the β -actin was detected as internal control. PCR products were separated on 2–3% agarose gel, which was used to check the proportions of CaV1.2E9* channels. (E) Relative expression of Rbfox2 was normalized to β -actin. (F) The proportion of CaV1.2E9* channels were analyzed and presented by a bar chart. $n = 3$ independent experiments. * $P < 0.05$, ** $P < 0.01$, one-way ANOVA followed by a Tukey's post hoc test Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37415128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Knockdown of Rbfox2 hyperpolarizes window currents of CaV1.2 channel in NRVMs. (A) The protein expression of Rbfox2 and β -actin were detected in whole-cell lysate of isolated NRVMs by using Western blotting after transfecting with NT or Rbfox2 siRNAs. The membrane protein was also extracted, and membrane expression of CaV1.2 α_{1C} was checked, Na-K ATPase was detected as a membrane loading control. (B) Relative expression level of Rbfox2 was normalized with β -actin in differentially transfected cells, and presented as a bar chart. $n = 4$ independent experiments. $**P < 0.001$, one-way ANOVA followed by a Tukey's post hoc test. (C) Relative CaV1.2 α_{1C} membrane expression was normalized with Na-K ATPase in differentially-transfected cells. $n = 4$ independent experiments. $P = 0.6679$, one-way ANOVA followed by a Tukey's post hoc test. (D) Raw traces of CaV1.2 whole-cell calcium current recorded from NRVMs treated with NT or Rbfox2 siRNA in 10 mmol/L Ba²⁺ external solution. (E) I-V relationship of calcium channel current recorded under the different testing potential, increased from -50 to 50 mV in NRVMs transfected with NT or Rbfox2 siRNA. (F) CaV1.2 channel current density in NRVMs was analyzed after transfected with NT or Rbfox2 siRNA. (H) Plots of steady-state activation (SSA) curve of CaV1.2 channel were analyzed from I-V currents in NT or Rbfox2 siRNA-treated NRVMs. (H) Plots of the steady-state inactivation (SSI) was also recorded in NRVMs. (I) CaV1.2 window currents were superimposed from SSI (f_{∞}) and SSA (d_{∞}) curves of NRVMs Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37415128>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Charlene Priscilla Poore, Jialei Yang, Shunhui Wei, Chee Kong Fhu, Zoë Bichler, Juejin Wang, Tuck Wah Soong, Ping Liao Enhanced isradipine sensitivity in vascular smooth muscle cells due to hypoxia-induced Ca v 1.2 splicing and RbFox1/Fox2 downregulation. The FEBS journal 2024-05-24 [PMID: 38794806]

Li P, Qin D, Chen T et al. Dysregulated Rbfox2 produces aberrant splicing of CaV1.2 calcium channel in diabetes-induced cardiac hypertrophy Cardiovascular diabetology 2023-07-06 [PMID: 37415128] (WB, Rat)

Welzel F, Kaehler C, Isau M et al. FOX-2 Dependent Splicing of Ataxin-2 Transcript Is Affected by Ataxin-1 Overexpression. PLoS One. 2012-05-30 [PMID: 22666429]

Dittmar KA, Jiang P, Park JW et al. Genome-wide determination of a broad ESRP-regulated posttranscriptional network by high-throughput sequencing. Mol Cell Biol 2012-04-01 [PMID: 22354987]

Chang LK, Chuang JY, Nakao M et al. MCAF1 and synergistic activation of the transcription of Epstein-Barr virus lytic genes by Rta and Zta. Nucleic Acids Res 2010-08-01 [PMID: 20385599]

Damianov A, Black DL. Autoregulation of Fox protein expression to produce dominant negative splicing factors. RNA 2010-02-01 [PMID: 20042473]

Tang ZZ, Zheng S, Nikolic J et al. Developmental control of CaV1.2 L-type calcium channel splicing by Fox proteins. Mol Cell Biol 2009-09-01 [PMID: 19564422]

Yeo GW, Coufal NG, Liang TY et al. An RNA code for the FOX2 splicing regulator revealed by mapping RNA-protein interactions in stem cells. Nat Struct Mol Biol 2009-02-01 [PMID: 19136955]

Zhang C, Zhang Z, Castle J et al. Defining the regulatory network of the tissue-specific splicing factors Fox-1 and Fox-2. Genes Dev 2008-09-01 [PMID: 18794351]



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Products Related to NB110-40588

NBL1-15218	FOX2 Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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